

Name: _____

Date: _____

FOIL when $A \neq 1$ SLTN (version 118)

FOIL the expressions shown below:

1. $(-6x + 9)(4x + 4)$

$$\begin{aligned} &(-6)(4)x^2 + (-6)(4)x + (9)(4)x + (9)(4) \\ &(-24)x^2 + (-24)x + (36)x + (36) \\ &-24x^2 + 12x + 36 \end{aligned}$$

2. $(-9x - 4)(-4x - 3)$

$$\begin{aligned} &(-9)(-4)x^2 + (-9)(-3)x + (-4)(-4)x + (-4)(-3) \\ &(36)x^2 + (27)x + (16)x + (12) \\ &36x^2 + 43x + 12 \end{aligned}$$

3. $(9x + 7)(-5x + 8)$

$$\begin{aligned} &(9)(-5)x^2 + (9)(8)x + (7)(-5)x + (7)(8) \\ &(-45)x^2 + (72)x + (-35)x + (56) \\ &-45x^2 + 37x + 56 \end{aligned}$$

4. $(-2x - 7)(3x - 9)$

$$\begin{aligned} &(-2)(3)x^2 + (-2)(-9)x + (-7)(3)x + (-7)(-9) \\ &(-6)x^2 + (18)x + (-21)x + (63) \\ &-6x^2 - 3x + 63 \end{aligned}$$

5. $(-6x - 2)(-7x - 7)$

$$\begin{aligned} &(-6)(-7)x^2 + (-6)(-7)x + (-2)(-7)x + (-2)(-7) \\ &(42)x^2 + (42)x + (14)x + (14) \\ &42x^2 + 56x + 14 \end{aligned}$$

FOIL the expressions shown below:

6. $(-5x + 7)(-2x + 4)$

$$\begin{aligned} &(-5)(-2)x^2 + (-5)(4)x + (7)(-2)x + (7)(4) \\ &(10)x^2 + (-20)x + (-14)x + (28) \\ &10x^2 - 34x + 28 \end{aligned}$$

7. $(5x - 6)(-7x - 2)$

$$\begin{aligned} &(5)(-7)x^2 + (5)(-2)x + (-6)(-7)x + (-6)(-2) \\ &(-35)x^2 + (-10)x + (42)x + (12) \\ &-35x^2 + 32x + 12 \end{aligned}$$

8. $(-2x - 9)(-9x + 5)$

$$\begin{aligned} &(-2)(-9)x^2 + (-2)(5)x + (-9)(-9)x + (-9)(5) \\ &(18)x^2 + (-10)x + (81)x + (-45) \\ &18x^2 + 71x - 45 \end{aligned}$$

9. $(2x - 8)(2x + 3)$

$$\begin{aligned} &(2)(2)x^2 + (2)(3)x + (-8)(2)x + (-8)(3) \\ &(4)x^2 + (6)x + (-16)x + (-24) \\ &4x^2 - 10x - 24 \end{aligned}$$

10. $(-6x - 3)(-7x + 8)$

$$\begin{aligned} &(-6)(-7)x^2 + (-6)(8)x + (-3)(-7)x + (-3)(8) \\ &(42)x^2 + (-48)x + (21)x + (-24) \\ &42x^2 - 27x - 24 \end{aligned}$$